International Aircraft Materials Fire Test Forum Meeting

Opening Remarks and General Information

Presented to: International Aircraft Materials Fire Test

Forum, Virtual Meeting

By: Tim Marker, FAA Technical Center

Date: April 19, 2021



Materials and Systems Forum Meetings

Meeting Recording Disclaimer

Meeting presentations are disseminated for the purpose of exchange of technical information related to aircraft fire safety issues. They do not represent official FAA policy, guidance, or certification criteria.

Although every effort has been made to conduct these meetings during convenient times of the day, it is not possible to accommodate participants from every part of the world. For this reason, we have decided to record the meeting, with the intention of posting the recording at a later date. The recording will allow those unable to attend the live meeting the option to review presentations and discussion at their convenience.

How Will the IAMFTF Virtual Meeting Be Structured?

2-Day Zoom Meeting

Hours of meeting 9:00 am to 1:00 pm ESDT

Meeting broken into specific topic areas/tasks

Topic areas/task leaders will provide background, status, updates

Each topic will be followed by a Q & A period to allow direct correspondence

Ground Rules for IAMFTF Zoom Meetings

Zoom Meeting Ground Rules

Everyone PLEASE go on mute

Use Raised hand feature (under Reactions button) to ask a question

If time permits, Moderator will call on participant to ask their question

Once question has been answered, click raised hand to "un-raise"

Participants are encouraged to hold questions until Q & A session that follows

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST FORUM MEETING

Hosted by the FAA Technical Center, Fire Safety Branch Virtual Meeting April 19-20, 2021 Agenda

MONDAY, APRIL 19, 2021

9:00-9:15 AM	Opening Remarks – T. Marker (FAATC)
9:15-9:25 AM	New Flammability Rule Update – J. Gardlin (FAA)
9:25-9:55 AM 9:55-10:10 AM	<u>Insulation Burner Testing Updates/Insulation Burner Instructional Video – T. Salter (FAATC)</u> <u>Q & A – T. Salter (FAATC)</u>
10:10-10:50 AM	<u>Vertical Flame Propagation Results To Date – T. Emami (FAATC)</u> <u>Vertical Flame Propagation Sleeving Tests, Factors Affecting Test Results – T. Emami (FAATC)</u>
10:50-11:10 AM	Q & A – T. Emami (FAATC)
11:10-11:40 AM 11:40-11:55 AM	Cargo Liner and Seat Cushion Shroud Update, Thermocouple Comparison – T. Salter (FAATC) Q & A – T. Salter (FAATC)
11:55-12:25 PM 12:25-12:40 PM	RTCA Development of a New Flammability Test for Electronic Boxes – S. Rehn (FAATC) Q & A – S. Rehn (FAATC)
12:40-1:00 PM 1:00-1:10 PM	Relationship Between 3-D Printed Materials and Flammability – S. Rehn (FAATC) Q & A – S. Rehn (FAATC)

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST FORUM MEETING

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TUESDAY, APRIL 20, 2021

9:00-9:10 AM 9:10-9:20 AM	<u>Vertical Bunsen Burner: Recent Discussions/Update – S. Campbell (SAFRAN)</u> <u>Q & A – S. Campbell (SAFRAN)</u>
9:20-9:40 AM 9:40-9:45 AM	<u>Technical Readiness Level (TRL) 6 Update – B. Johnson (Boeing)</u> <u>Q & A – B. Johnson (Boeing)</u>
9:45-10:00 AM 10:00-10:05 AM	HR2 Calibration Averaging Update – Y. Agyei (Boeing) Q & A – Y. Agyei (Boeing)
10:05-10:15 AM 10:15-10:25 AM	
	HR2 Sonic Choke Research – M. Burns (FAATC) Q & A – M. Burns (FAATC)
	HR2/NBS Smoke Monitoring & Next Steps – M. Burns (FAATC) Q & A – M. Burns (FAATC)
11:05-11:10 AM 11:10-11:20 AM 11:20-11:30 AM	

INTERNATIONAL AIRCRAFT MATERIALS FIRE TEST FORUM MEETING

Hosted by the FAA Technical Center, Fire Safety Branch Virtual Meeting April 19-20, 2021 Agenda

TUESDAY, APRIL 20, 2021 (continued)

11:30-11:45 AM	Similarity Pro	<u>oject Update – N.</u>	Safronava & R. Lv	yon (FAATC)

11:45-12:00 PM Q & A – N. Safronava & R. Lyon (FAATC)

12:00-12:10 PM Waste Compartment Fire Containment Task Group Update – S. Campbell (SAFRAN)

12:10-12:15 PM Q & A – S. Campbell (SAFRAN)

12:15-12:30 PM Disinfection Agents Impact, Update of Efforts by SAE, RTCA, A4A, IATA – J. Davis (Accufleet)

12:30-12:45 PM Q & A – J. Davis (Accufleet)

Purpose of Meeting and Expected Outcomes

<u>Primary Objective</u>: Interactive discussion between FAA and industry on the development, refinement, and proper execution of FAA-mandated material fire tests.

Secondary Topics may include:

Full-Scale Testing and related fire research

Regulatory Issues

International harmonization of flammability regulations

NPRM (past and future)

Accident Investigations

Triennial conference and other Forum topics

<u>Expected Outcome</u>: Open exchange of ideas between FAA/industry to further refine material flammability tests.

What is the Purpose of the International Aircraft Materials Fire Test Forum?

To jointly discuss (government + industry) problems, technology, and future R & D related to aircraft materials fire testing. It provides a forum for industry to express ideas and opinions related to this subject.

Not a typical conference format.

Interactive, Working Group format.*

Group relies heavily on the expertise, contributions, and participation of industry, to help fuel this meeting!

*questions/comments welcome, but extensive debate should be reserved for Task Group sessions

Other Topics to Consider for Future:

...from internal Fire Safety discussion to identify future research needed to address industry objectives and innovations

- Routine Small Unmanned Aircraft Systems (UAS)
- Urban Air Mobility
- Supersonic Flight
- Space Vehicle Operations
- Growth of Mixed Operations (piloted, autonomous, unmanned)
- Advances in Electric or Hybrid Electric Propulsion
- Certification Using New Technologies, Standards, or Processes
- Impact of disinfection solutions on material flammability
- Cabin Environment/Air quality/control of airborne illnesses
- Transportation of vaccine at very low temperatures (use of dry ice)

Status of FAA Technical Center

Fire Safety Branch has been 35-40%
On-site since 2021

All physical testing at the labs minimized (i.e., mission critical only)

Recovery efforts being phased in

Currently still in Phase 1 of 3 (NJ is still currently "red")

Will remain in Phase 1 for next several months

Fire Safety Branch still productive!

Aircraft Materials Fire Test Handbook – Appendix F

Laboratories Actively Using Fire Test Procedures

January 2021 Update

4Drive & Aviation Lodz, Poland	Chapters: 1*, 2*, 3*, 4*, 10*, 18*, 22*
AkroFire, Inc. Lenexa, KS 66215	Chapters: 1*, 2*, 3*, 8*. 11*, 12*, 15*, 23*
Chemitox, Inc. Yamanashi-ken, 408-0103 JAPAN	Chapters: 1*, 2*, 3*, 4*, 6*
F. LIST CANADA CORP. Laval, Quebec, Canada, H7L 5S7	Chapters: 1*, 2*, 3*, 4*
F. LIST GMBH A-2842 Thomasberg, Austria	Chapters: 1*, 2*, 3*, 4*
Jamco Singapore Pte Ltd (Deleted: Lab Closed) Singapore 508915	Chapters: 1*, 2*, 3*, 5*, 6*, 7*, 23*

*Commercial Testing Services Offered



Aircraft Materials Fire Test Handbook – Appendix F

Laboratories Actively Using Fire Test Procedures

February 2021 Update

NIAR (National Institute for Aviation	Chapters: 1*,2*,3*,4*,5*,6*
Research/Advanced Coating Lab	
Wichita, KS, 67226	

Labs that did not respond to May 2020 Lab Listing Accuracy Check Send contact email for these labs to april.ctr.horner@faa.gov.

*Commercial Testing Services Offered



10th Triennial International Aircraft Fire and Cabin Safety Research Conference

STATUS:

FAA Internal Request Submitted. Venue Proposals sent to FAA HQ Contracts Officer.

DATES:

October 17-20, 2022

LOCATION:

Resorts Casino-Hotel, Atlantic City, New Jersey, USA*

*Contingencies:

- DOT/FAA eases restrictions on in-person meetings.
- FAA Administrator approves the Conference Request.
- FAA HQ Contracts Officer makes final venue selection/finalizes venue contract.
- Our ability to meet Covid-19 protocols required at that time.

Questions?